IN THE CLAIMS

Please amend claims 13, 16, 23 and 25 as follows:

1. (Previously Presented) A method of marking a packet stream including a plurality of data packets from a source comprising the steps of:

determining a sending rate estimate, s;

determining any credits or debits for the packet stream, wherein a probability marking of the packet stream is improved while there is a sufficiently accumulated credit and when a first criterion is met; and

probabilistically marking the packet stream to one of a plurality of priority levels based on the sending rate estimate, s.

2. (Previously Presented) A method of marking a packet stream including a plurality of data packets from a source comprising the steps of:

determining a sending rate estimate, s;

determining any credits or debits for the packet stream; and

probabilistically marking the packet stream to one of a plurality of priority levels based on the sending rate estimate, s, wherein the step of marking comprises the steps of

determining if the sending rate estimate is less than a first rate threshold; and

in response to a determination that the sending rate estimate is less than the first rate threshold, setting a probability of marking at least one data packet with a first selected priority level is one of a plurality of priority levels.

3. (Original) The method of claim 2 further comprising the step of:

in response to a determination that the s is less than the first rate threshold, incrementing a burst size.

4. (Previously Presented) A method of marking a packet stream including a plurality of data packets from a source comprising the steps of:

determining a sending rate estimate, s;

determining any credits or debits for the packet stream; and

probabilistically marking the packet stream to one of a plurality of priority levels based on the sending rate estimate, s, wherein the step of marking comprises the steps of

determining if the sending rate estimate is between a first rate threshold (FRT) and a second rate threshold; and

in response to a determination that the sending rate estimate is between a first rate threshold and a second rate threshold, setting a probability of marking a data packet with a subordinate priority level based on s.

5. (Previously Presented) A method of marking a packet stream including a plurality of data packets from a source comprising the steps of:

determining a sending rate estimate, s;

determining any credits or debits for the packet stream; and

probabilistically marking the packet stream to one of a plurality of priority levels based on the sending rate estimate, s, wherein the step of marking comprises the steps of

determining if the sending rate estimate is between a first rate threshold (FRT) and a second rate threshold; and

in response to a determination that the sending rate estimate is between a first rate threshold and a second rate threshold, marking a data packet such that a rate of packets marked a subordinate policy level is no greater than 1 - (FRT/s).

6. (Previously Presented) A method of marking a packet stream including a plurality of data packets from a source comprising the steps of:

determining a sending rate estimate, s;

determining any credits or debits for the packet stream; and

probabilistically marking the packet stream to one of a plurality of priority levels based on the sending rate estimate, s, wherein the step of marking comprises the steps of

determining if the sending rate estimate is above a second rate threshold (SRT); and

in response to a determination that the sending rate estimate is above the SRT, marking the packet such that a rate of packets marked the second priority level is at least (SRT - FRT)/s.

7. (Original) The method of claim 6 further comprises the step of:

in response to a determination that the sending rate is above the SRT, marking the packet such that a rate of packets marked a lowest priority level is at least (s-SRT)/s.

8. (Previously Presented) A method of marking a packet stream including a plurality of data packets from a source comprising the steps of:

determining a sending rate estimate, s;

determining any credits or debits for the packet stream; and

probabilistically marking the packet stream to one of a plurality of priority levels based on the sending rate estimate, s;

determining if the sending rate estimate is greater than a rate threshold;

in response to a determination that the sending rate estimate is greater than the rate threshold, determining if a burst size is greater than a minimum burst; and

in response to a determination that the burst size is greater than the minimum burst, marking the packet a first priority level.

9. (Original) The method of claim 8 further comprising the step of:

in response to a determination that the burst size is greater than the minimum burst, decrementing the burst size.

10. (Previously Presented) A method of marking a packet stream including a plurality of data packets from a source comprising the steps of:

determining a sending rate estimate, s;

determining any credits or debits for the packet stream; and

probabilistically marking the packet stream to one of a plurality of priority levels based on the sending rate estimate, s;

determining if the sending rate estimate is greater than the super rate threshold, determining if a burst size is greater than a minimum burst; and

in response to a determination that the burst size is greater than a minimum burst, marking the packet a priority level based on a count of packets marked a highest priority level during a period.

11. (Original) The method of claim 10 further comprising the step of:

in response to a determination that the burst size is greater than the minimum burst, decrementing the burst size.

12. (Previously Presented) An apparatus for marking a packet stream including a plurality of data packets from a source comprising:

a means for determining a sending rate estimate, s; and

a means for determining any credits or debits for the packet stream, wherein a probability marking of the packet stream is improved while there is a sufficiently accumulated credit and when a first criterion is met; and

a means for probabilistically marking the packet stream to one of a plurality of priority levels based on the sending rate estimate, s.

13. (Currently Amended) An apparatus for marking a packet stream including a plurality of data packets from a source comprising:

a means for determining a sending rate estimate, s; and

a means for determining any credits or debits for the packet stream, wherein a probability marking of the packet stream is improved while there is a sufficiently accumulated credit and when a first criterion is met; and

a means for probabilistically marking the packet stream to one of a plurality of priority levels based on the sending rate estimate, s, wherein the means for marking comprises

a means for determining if the sending rate estimate is less than a first rate threshold; and

a means for setting a probability of marking at least one data packet with a first selected priority level to a first value, said means responsive to a determination that the sending rate estimate is less than the first rate threshold, wherein said first selected priority level is one of a plurality of priority levels.

14. (Original) The apparatus of claim 13 further comprises:

a means for incrementing a burst size, in response to a determination that the s is less than the first rate threshold.

15. (Previously Presented) An apparatus for marking a packet stream including a plurality of data packets from a source comprising:

a means for determining a sending rate estimate, s; and

a means for determining any credits or debits for the packet stream, wherein a probability marking of the packet stream is improved while there is a sufficiently accumulated credit and when a first criterion is met; and

a means for probabilistically marking the packet stream to one of a plurality of priority levels based on the sending rate estimate, s, wherein the means for marking comprises

a means for determining if the sending rate estimate is between a first rate threshold (FRT) and a second rate threshold; and

a means for setting a probability of marking a data packet with a subordinate priority level based on s, said means responsive to a determination that the sending rate estimate is between a first rate threshold and a second rate threshold.

16. (Currently Amended) The apparatus of claim 12 wherein the means for marking comprises:

a means for determining if the sending rate estimate is between a first rate threshold (FRT) and a second rate threshold; and

a means for marking a data packet such that a rate of packets marked a subordinate priority level is no greater than 1 - (FRT/s) in response to a determination that the sending rate estimate is between a first rate threshold and a second rate threshold.

17. (Previously Presented) An apparatus for marking a packet stream including a plurality of data packets from a source comprising:

a means for determining a sending rate estimate, s; and

a means for determining any credits or debits for the packet stream, wherein a probability marking of the packet stream is improved while there is a sufficiently accumulated credit and when a first criterion is met; and

a means for probabilistically marking the packet stream to one of a plurality of priority levels based on the sending rate estimate, s, wherein the means for marking comprises

a means for determining if the sending rate estimate is above a second rate threshold (SRT); and

a means for marking the packet such that a rate of packets marked the second priority level is at least (SRT - FRT)/s, in response to a determination that the sending rate estimate is above the SRT.

18. (Original) The apparatus of claim 17 further comprises:

a means for marking the packet such that a rate of packets marked a lowest priority level is a least (s-SRT)/s, in response to a determination that the sending rate is above the SRT.

19. (Previously Presented) An apparatus for marking a packet stream including a plurality of data packets from a source comprising:

a means for determining a sending rate estimate, s; and

a means for determining any credits or debits for the packet stream, wherein a probability marking of the packet stream is improved while there is a sufficiently accumulated credit and when a first criterion is met;

a means for probabilistically marking the packet stream to one of a plurality of priority levels based on the sending rate estimate, s,;

a means for determining if the sending rate estimate is greater than a rate threshold;

a means for determining if a burst size is greater than a minimum burst, in response to a determination that the sending rate estimate is greater than the rate threshold; and

a means for marking the packet a first priority level, in response to a determination that the burst size is greater than a minimum burst.

20. (Original) The apparatus of claim 19 further comprises:

a means for decrementing the burst size, in response to a determination that the burst size is greater than the minimum burst.

21. (Previously Presented) An apparatus for marking a packet stream including a plurality of data packets from a source comprising:

a means for determining a sending rate estimate, s; and

a means for determining any credits or debits for the packet stream, wherein a probability marking of the packet stream is improved while there is a sufficiently accumulated credit and when a first criterion is met;

a means for probabilistically marking the packet stream to one of a plurality of priority levels based on the sending rate estimate, s,;

a means for determining if the sending rate estimate is greater than a super rate threshold;

a means for determining if a burst size is greater than a minimum burst, in response to a determination that the sending rate estimate is greater than the super rate threshold; and

a means for marking the packet a priority level based on a count of packets marked a highest priority level during a period, in response to a determination that the burst size is grater than a minimum burst.

22. (Original) The apparatus of claim 21 further comprising:

a means for decrementing the burst size, in response to a determination that the burst size is greater than the minimum burst.

23. (Currently Amended) A method to determine probability for marking a packet a priority level comprising the steps of:

determining a first probability by using a first algorithm;

determining at least one second probability by using a second algorithm, the first algorithm being different from the second algorithm; and

weighting each probability so that each probability contributes to a net probability, wherein the weighting comprises determining any credits or debits for a packet stream, wherein a probability marking of the packet stream is improved while there is a sufficiently accumulated credit and when a first criterion is met.

24. (Original) A computer program embodied within a computer readable medium, the computer program includes means for marking a packet stream including a plurality of data packets from a source by performing the steps of:

determining a sending rate estimate, s; and

determining any credits or debits for the packet stream, wherein a probability marking of the packet stream is improved while there is a sufficiently accumulated credit and when a first criterion is met; and

probabilistically marking the packet stream to one of a plurality of priority levels based on the sending rate estimate, s.

25. (Currently Amended) A ~~An~~ system for marking a packet stream including a plurality of data packets from a source, comprising:

a metering tool for determining a sending rate estimate, s; and

a determining means for determining any credits or debits for the packet stream, wherein a probability marking of the packet stream is improved while there is a sufficiently accumulated credit and when a first criterion is met; and

a router for probabilistically marking the packet stream to one of a plurality of priority levels based on the sending rate estimate, s.

26. (Original) An apparatus for marking a packet stream including a plurality of data packets from a source comprising:

a metering tool for determining a sending rate estimate, s; and

a determining component for determining any credits or debits for the packet stream, wherein a probability marking of the packet stream is improved while there is a sufficiently accumulated credit and when a first criterion is met; and

a marking component for probabilistically marking the packet stream to one of a plurality of priority levels based on the sending rate estimate, s.